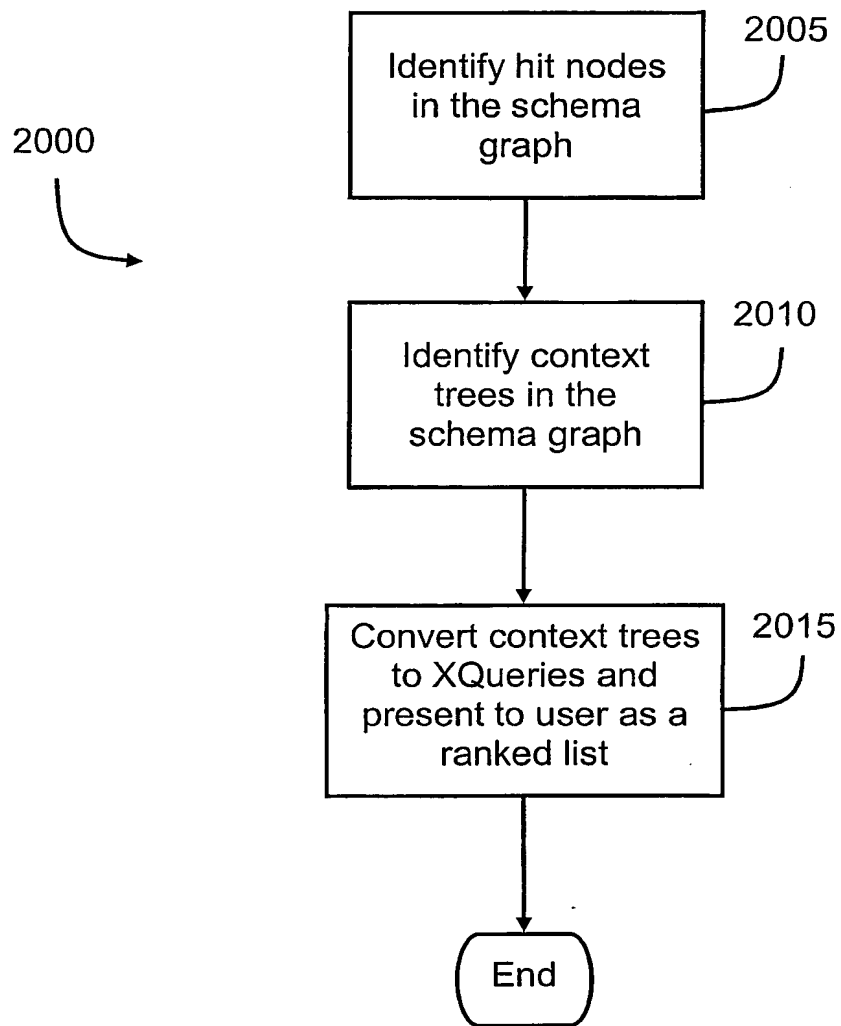
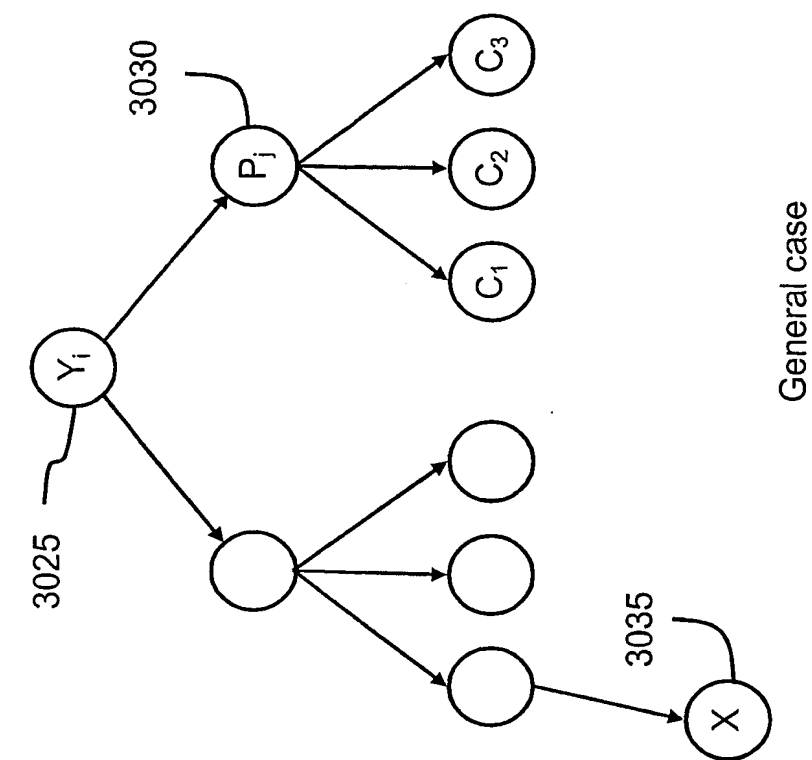


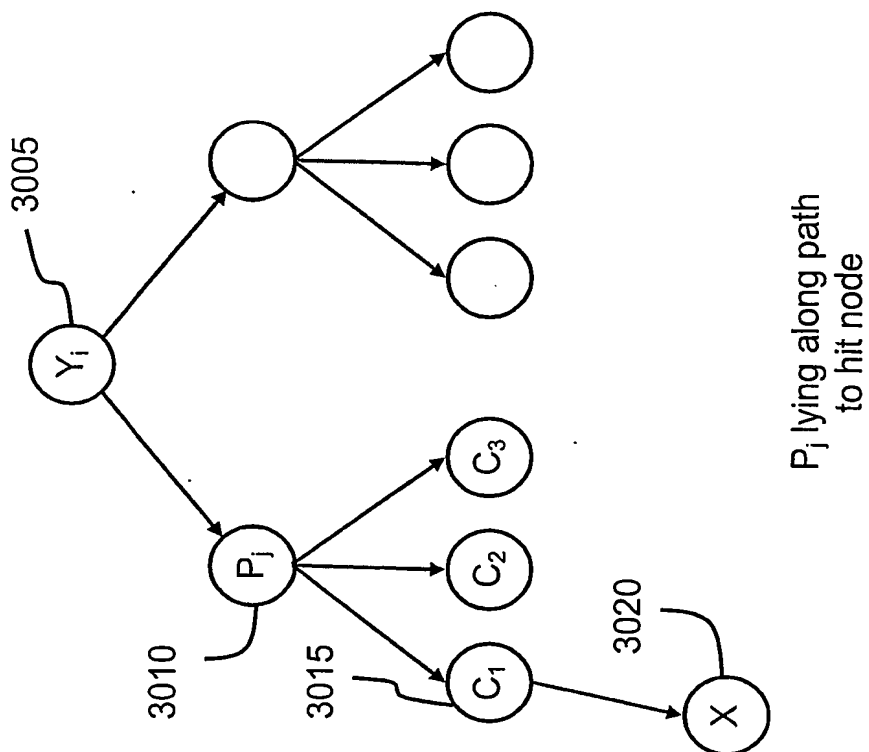
Fig. 1

**Fig. 2**



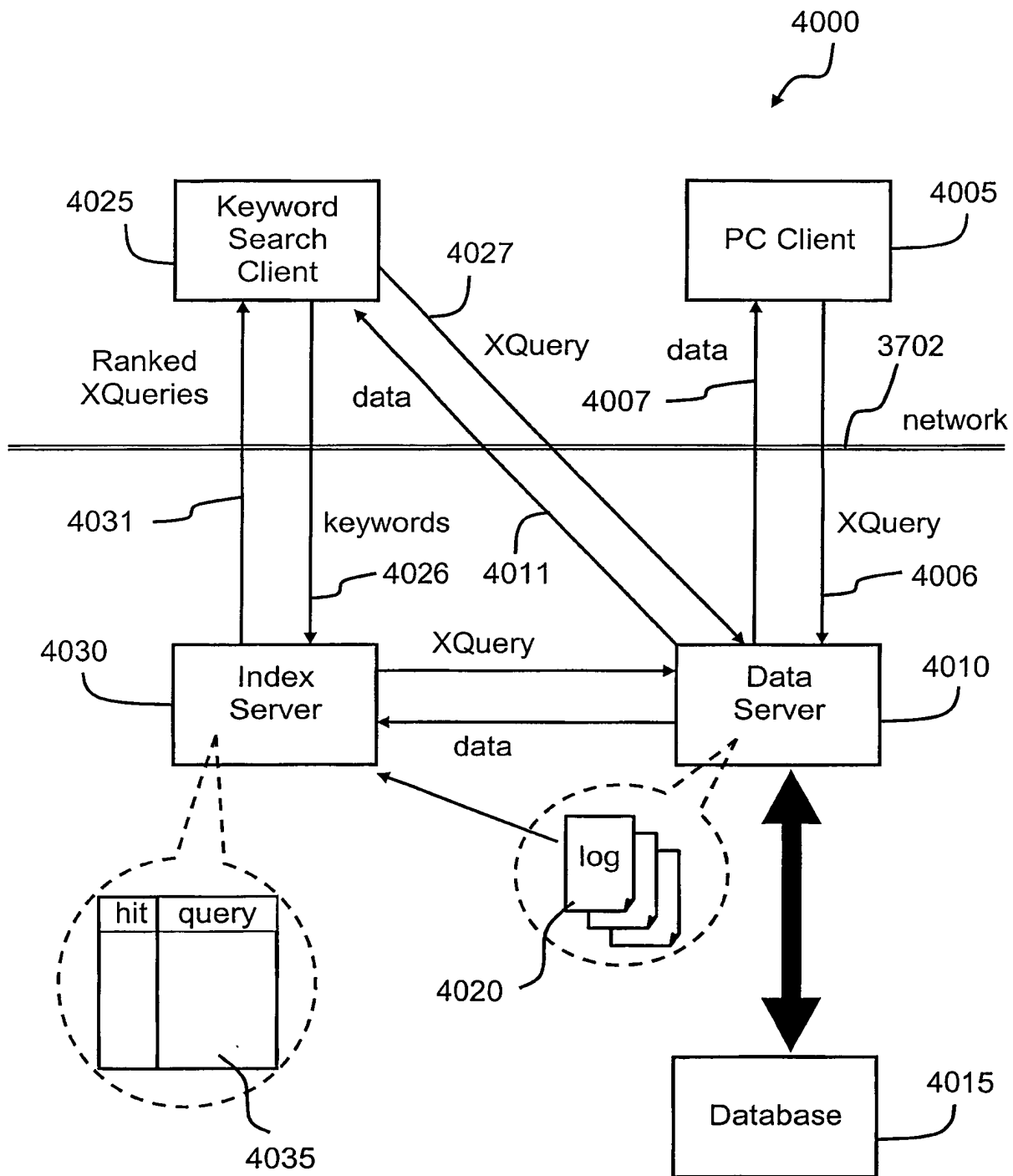
General case

Fig. 3B



P<sub>j</sub> lying along path to hit node

Fig. 3A

**Fig. 4**

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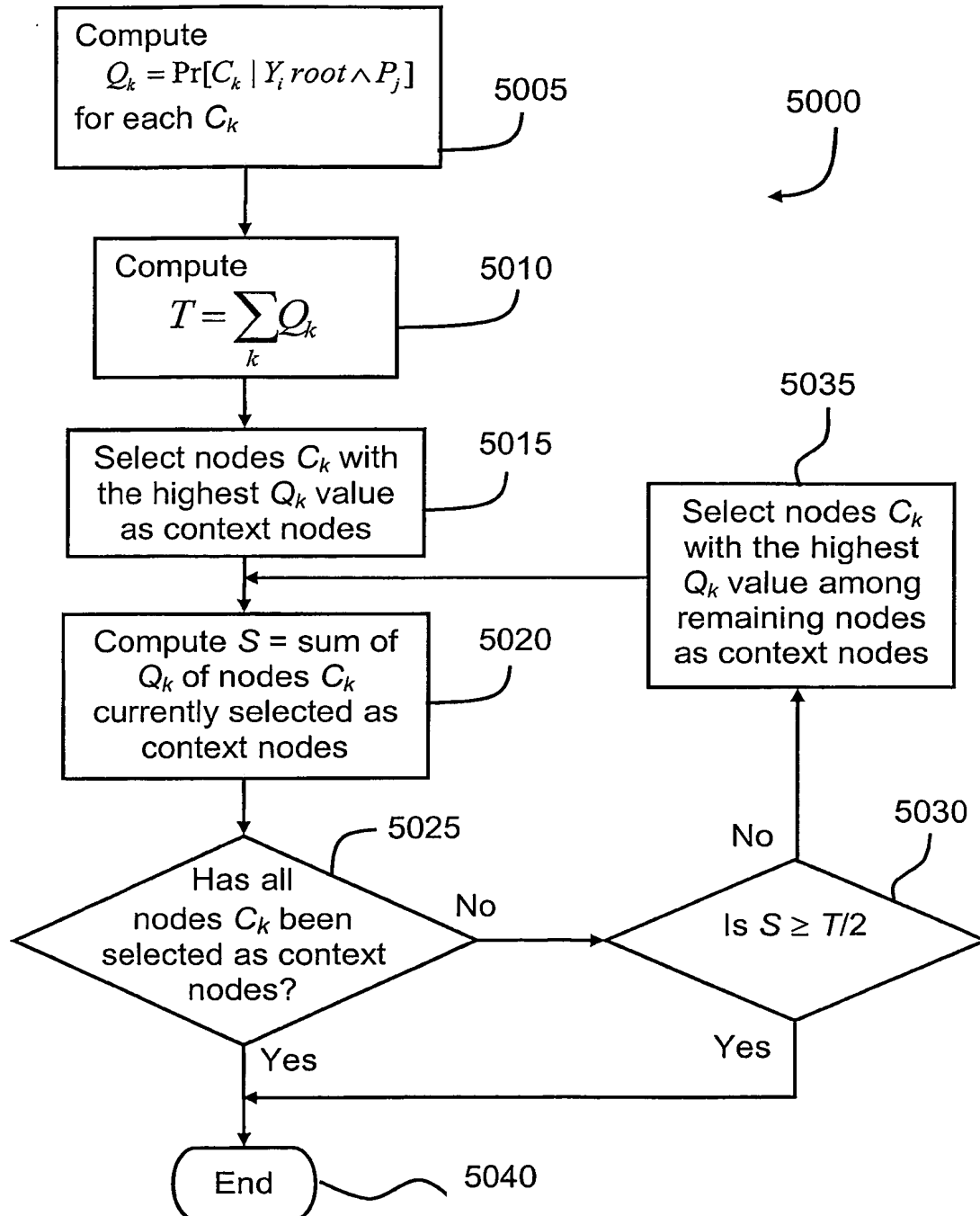
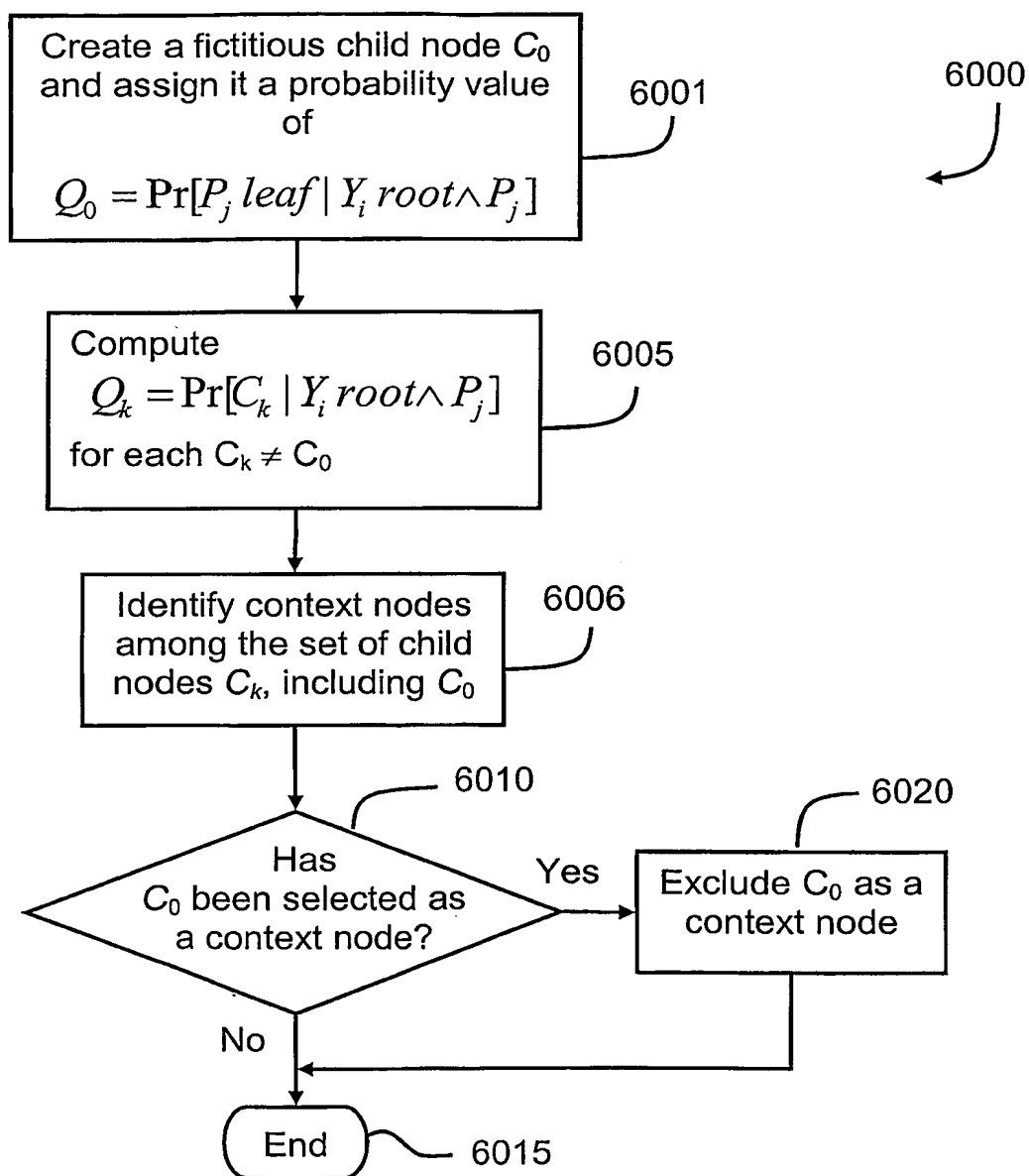


Fig. 5

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**Fig. 6**

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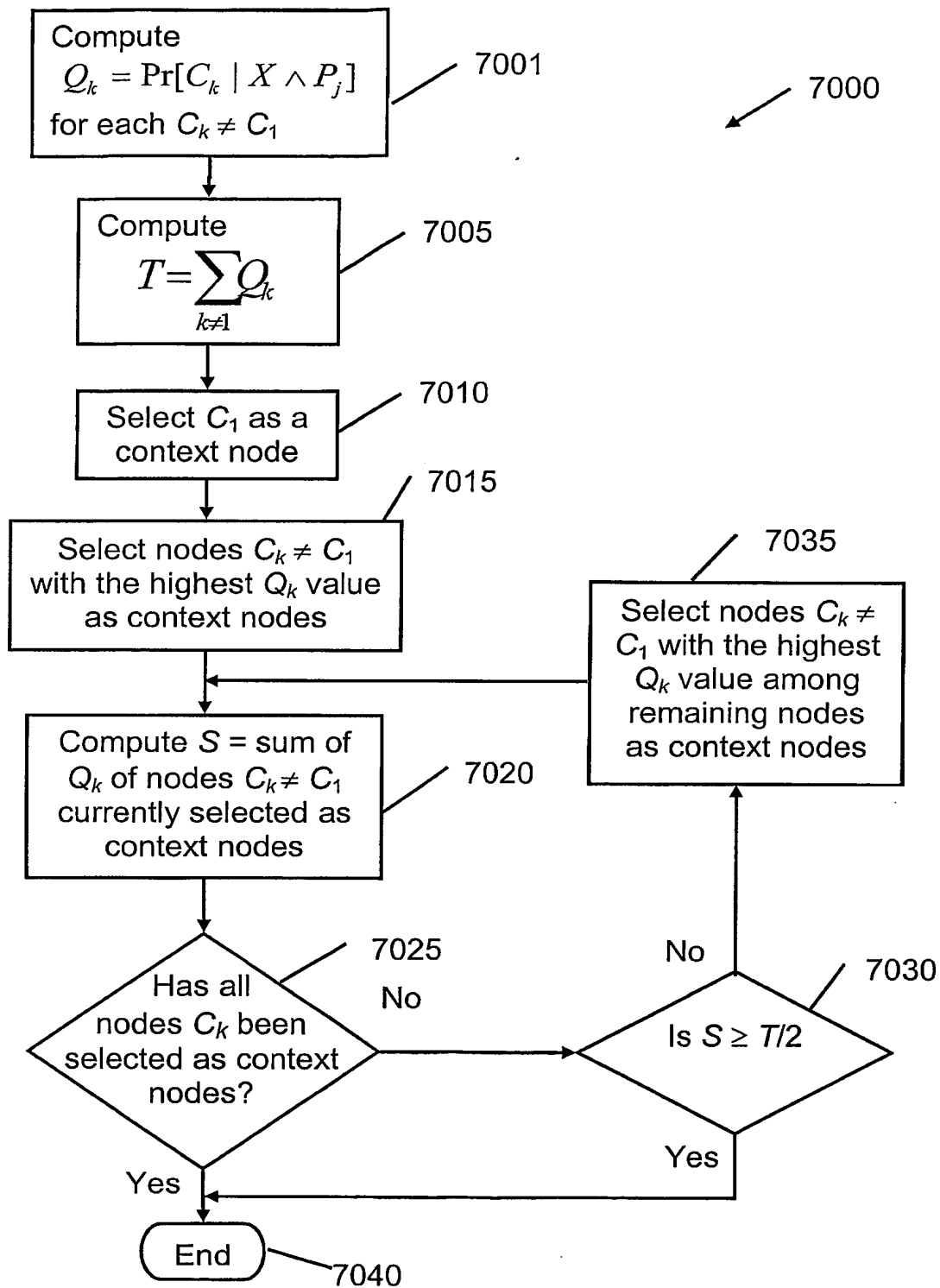
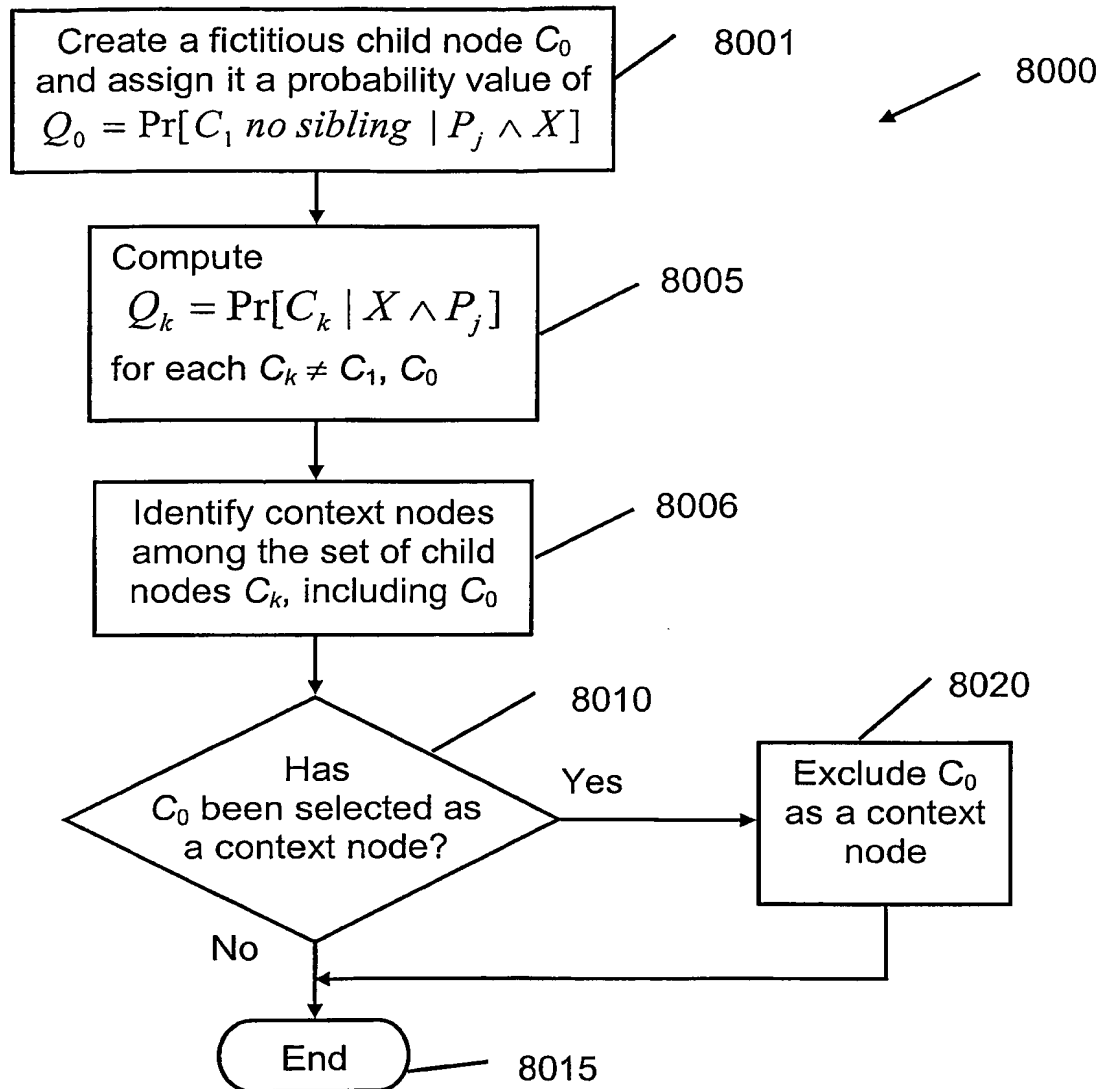
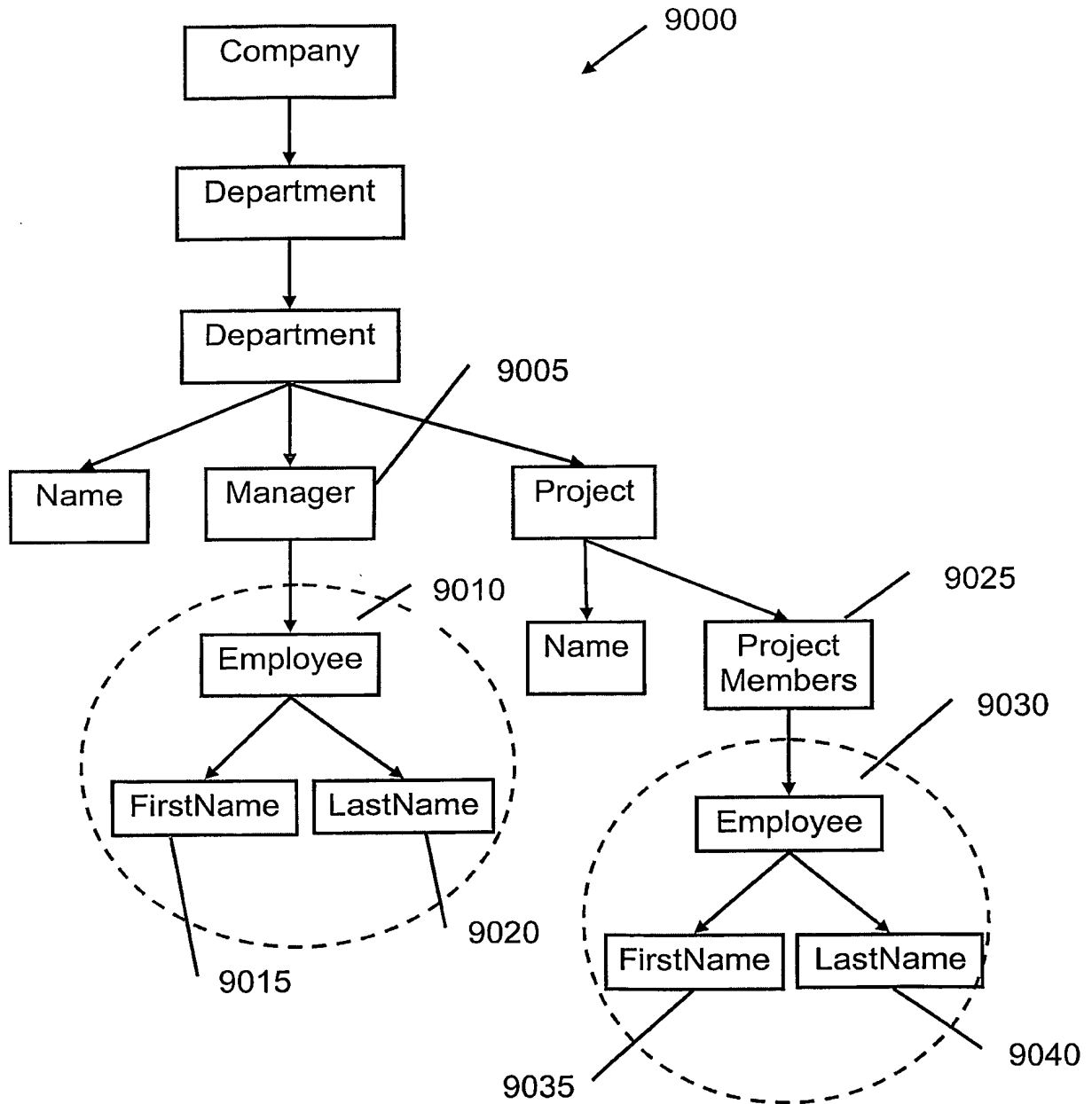


Fig. 7

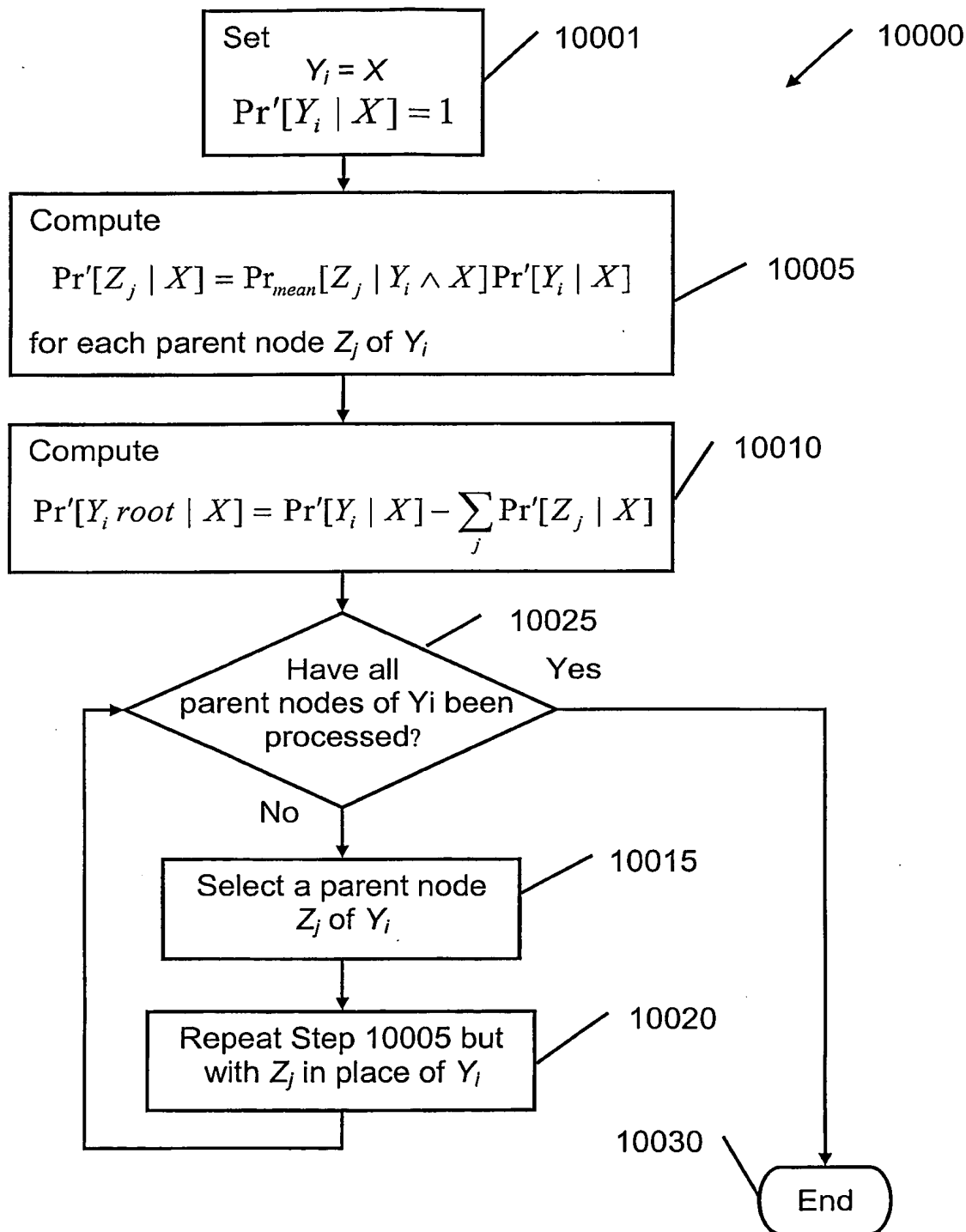
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**Fig. 8**

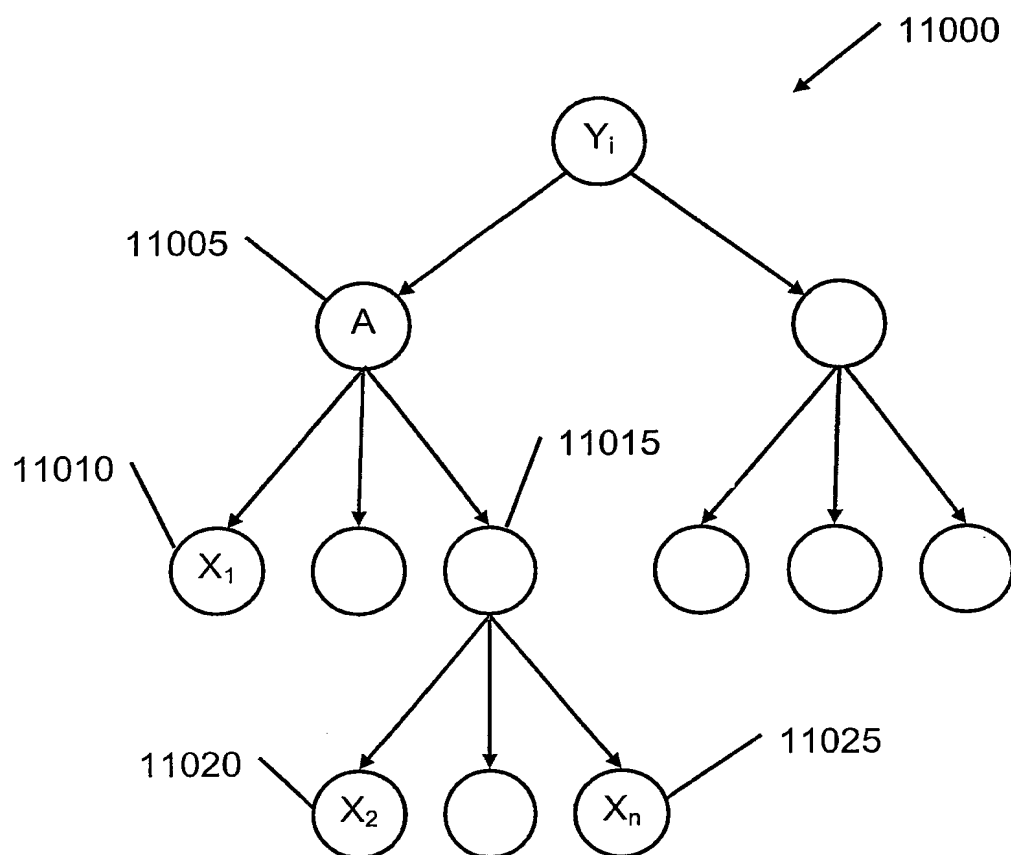


**Fig. 9**

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**Fig. 10**

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**Fig. 11**

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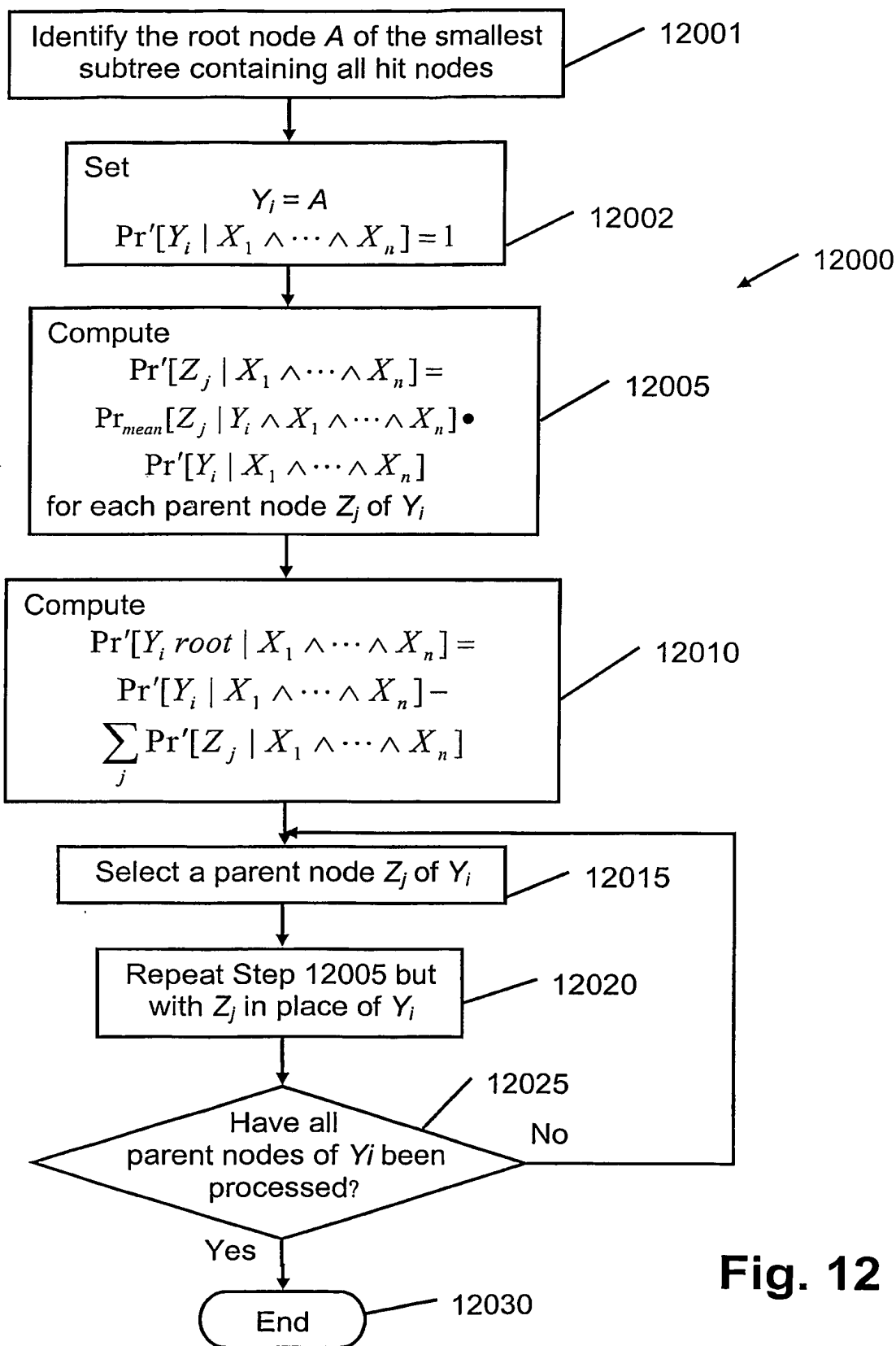
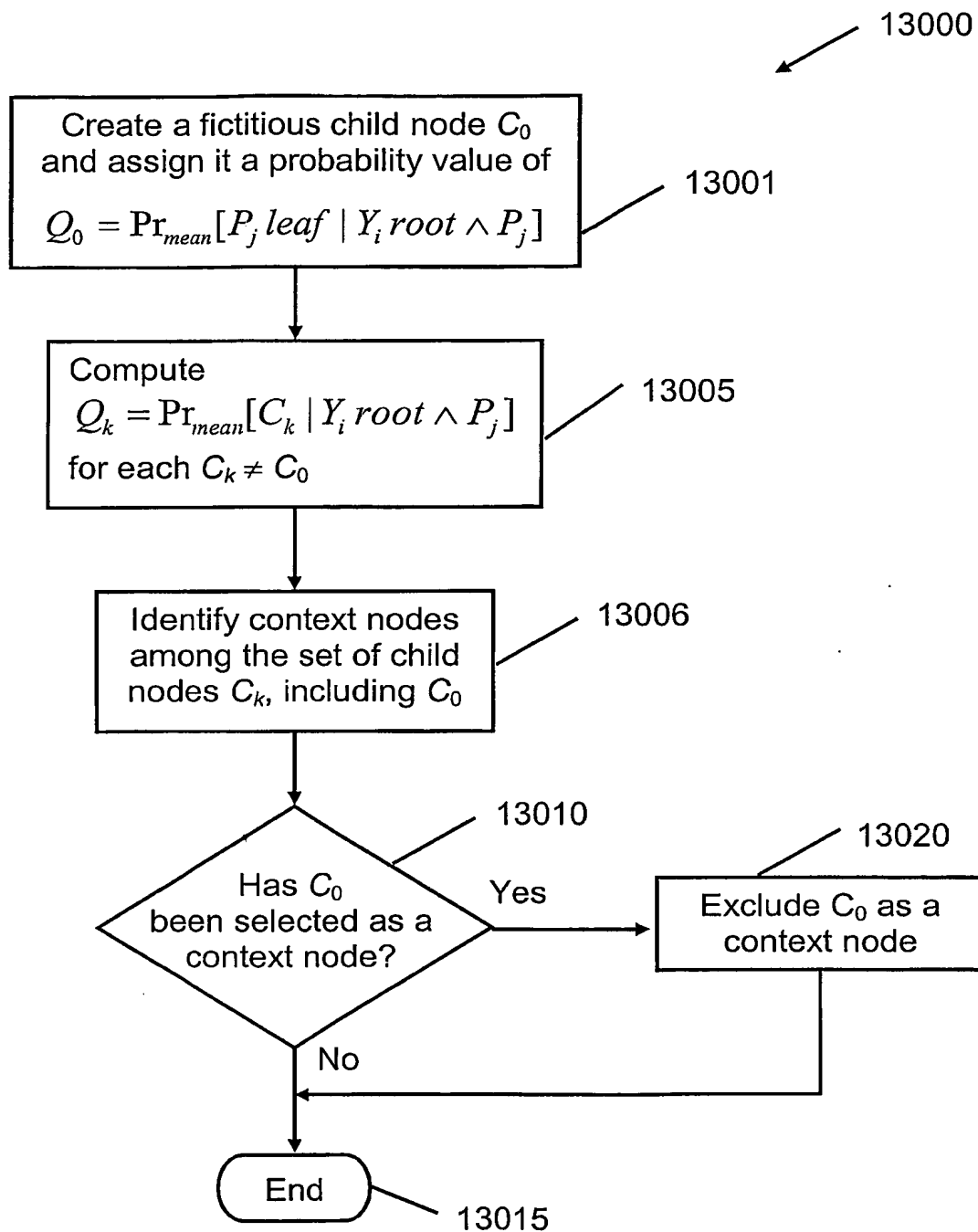


Fig. 12

**Fig. 13**

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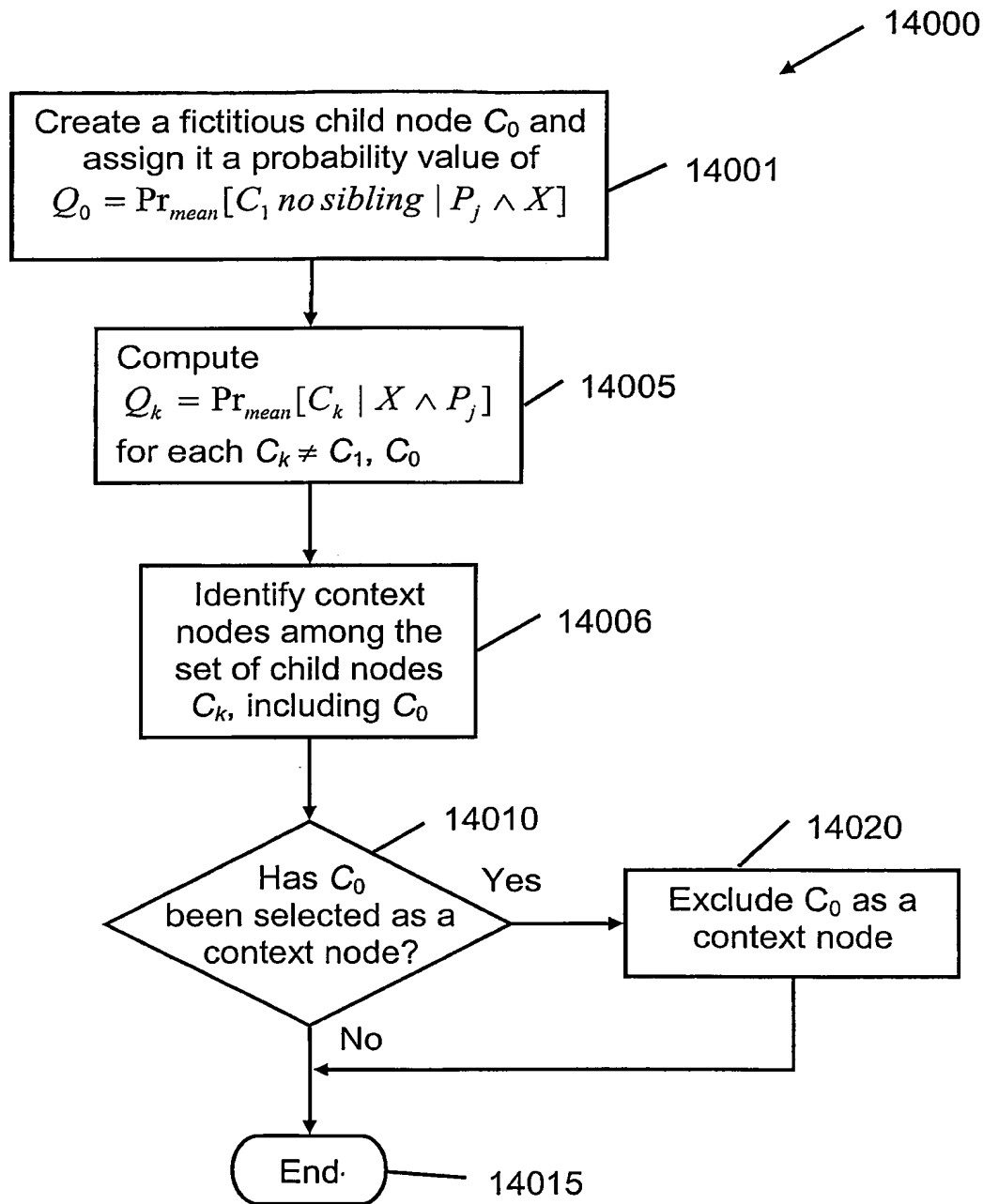


Fig. 14

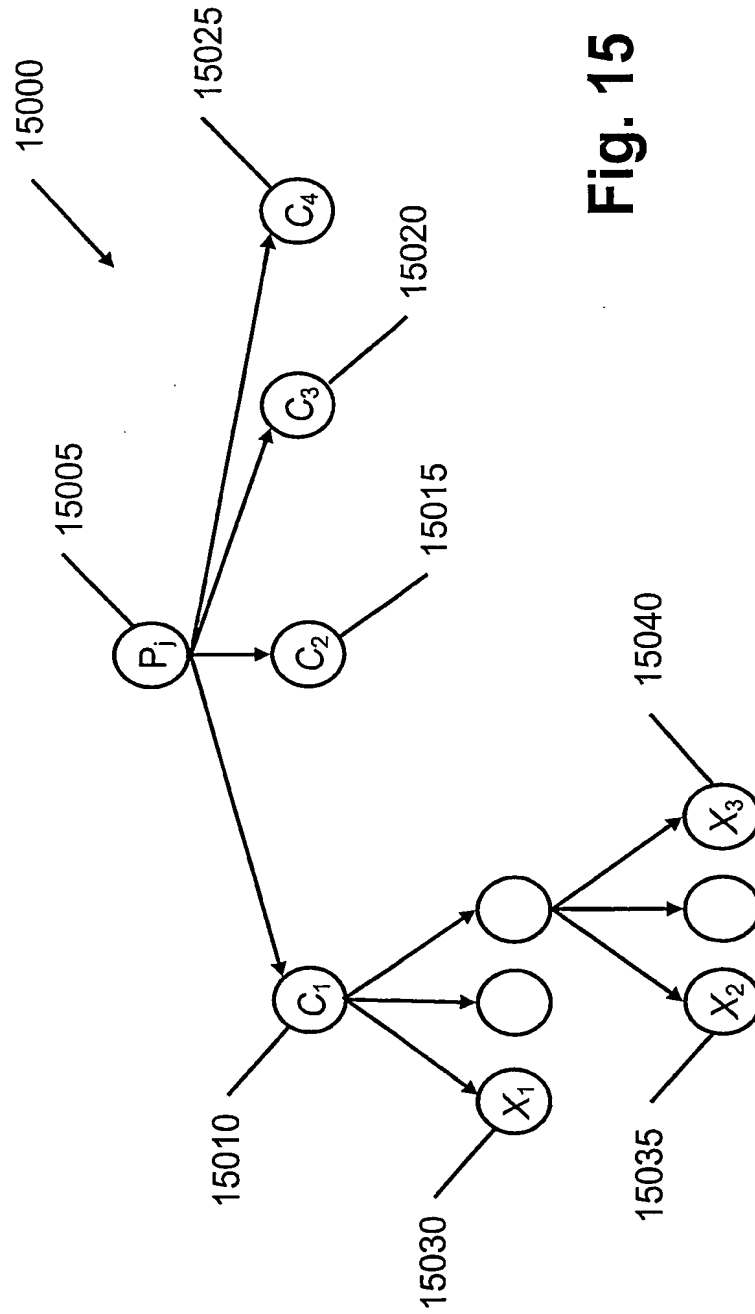
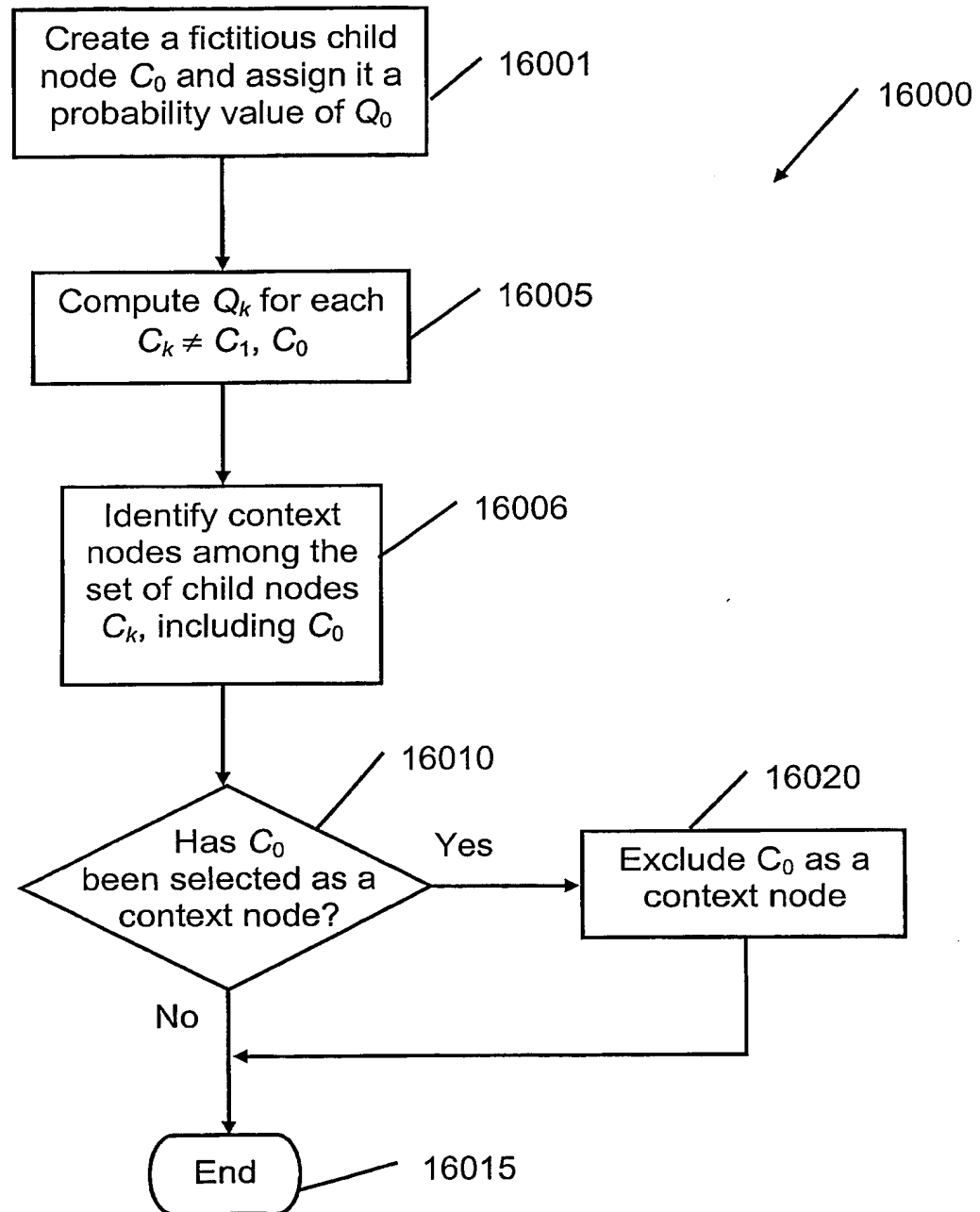


Fig. 15

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**Fig. 16**



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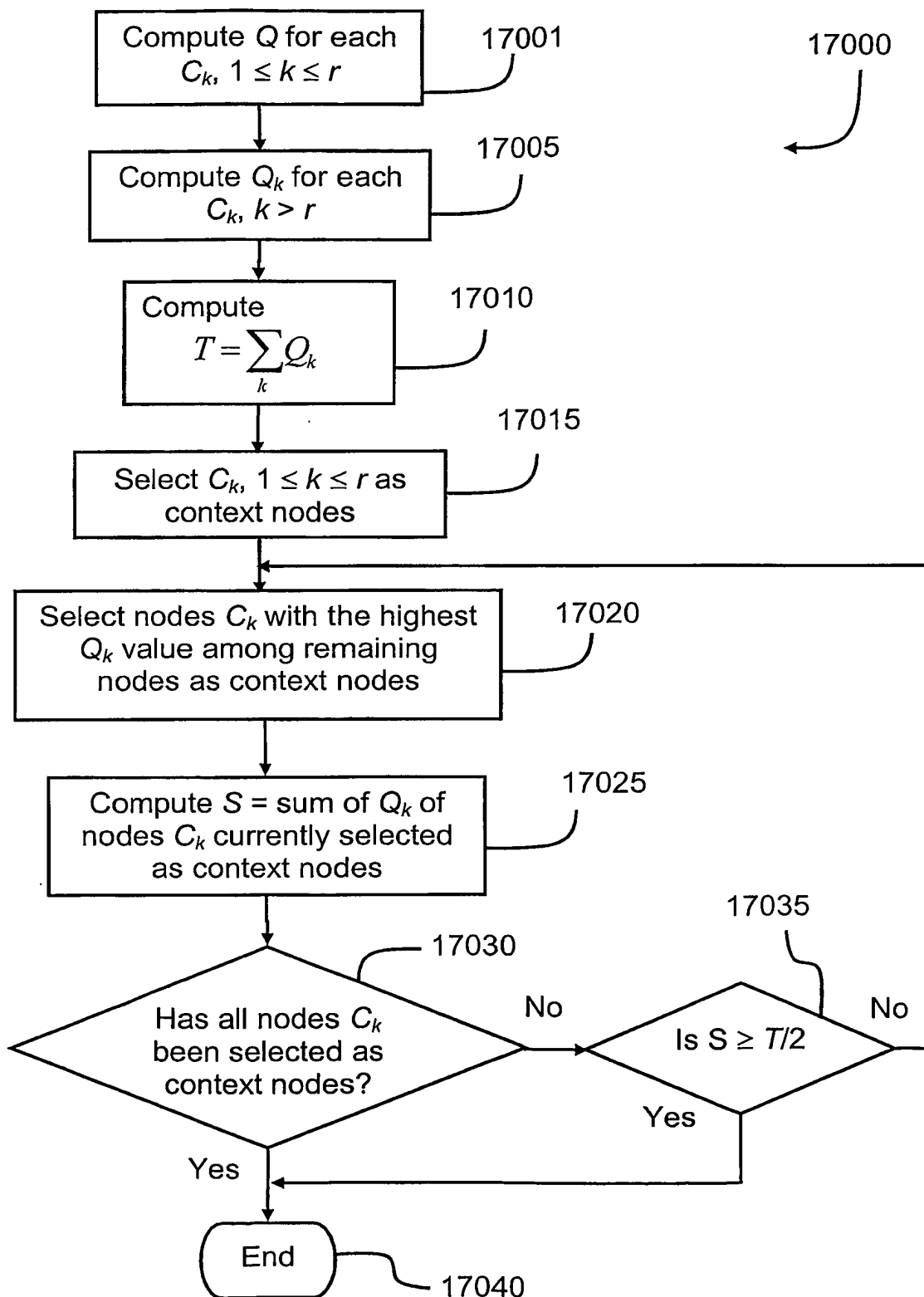
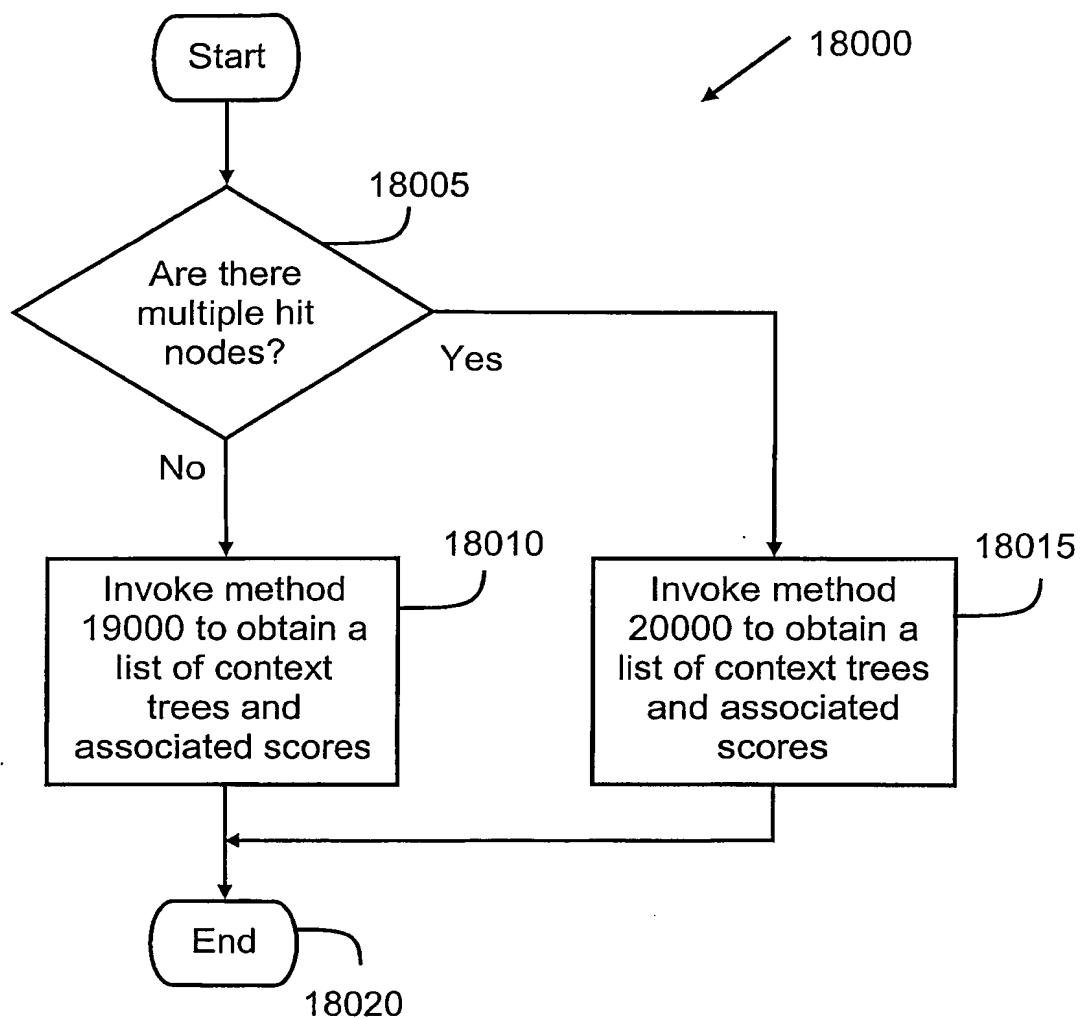
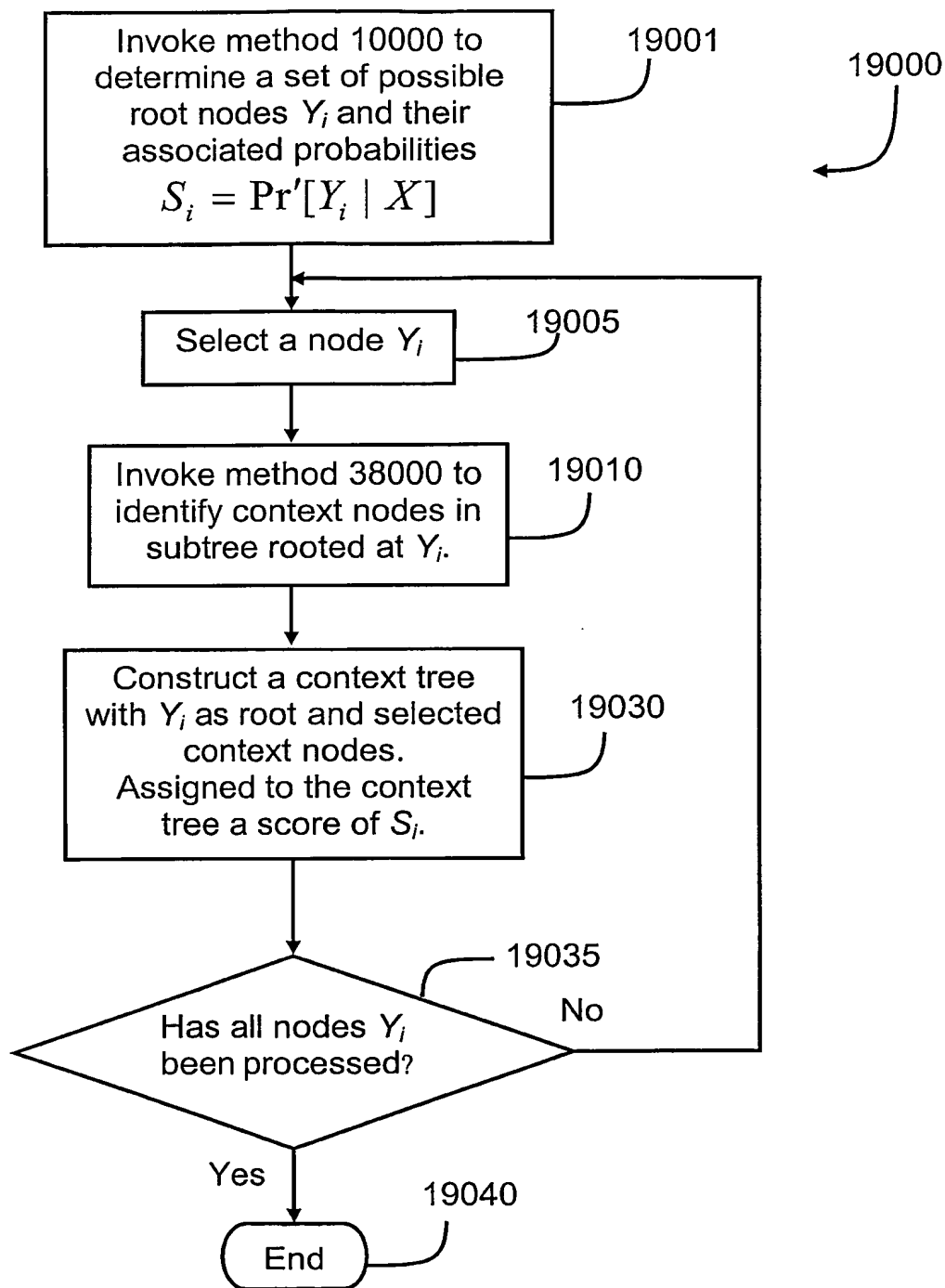


Fig. 17

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**Fig. 18**

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**Fig. 19**

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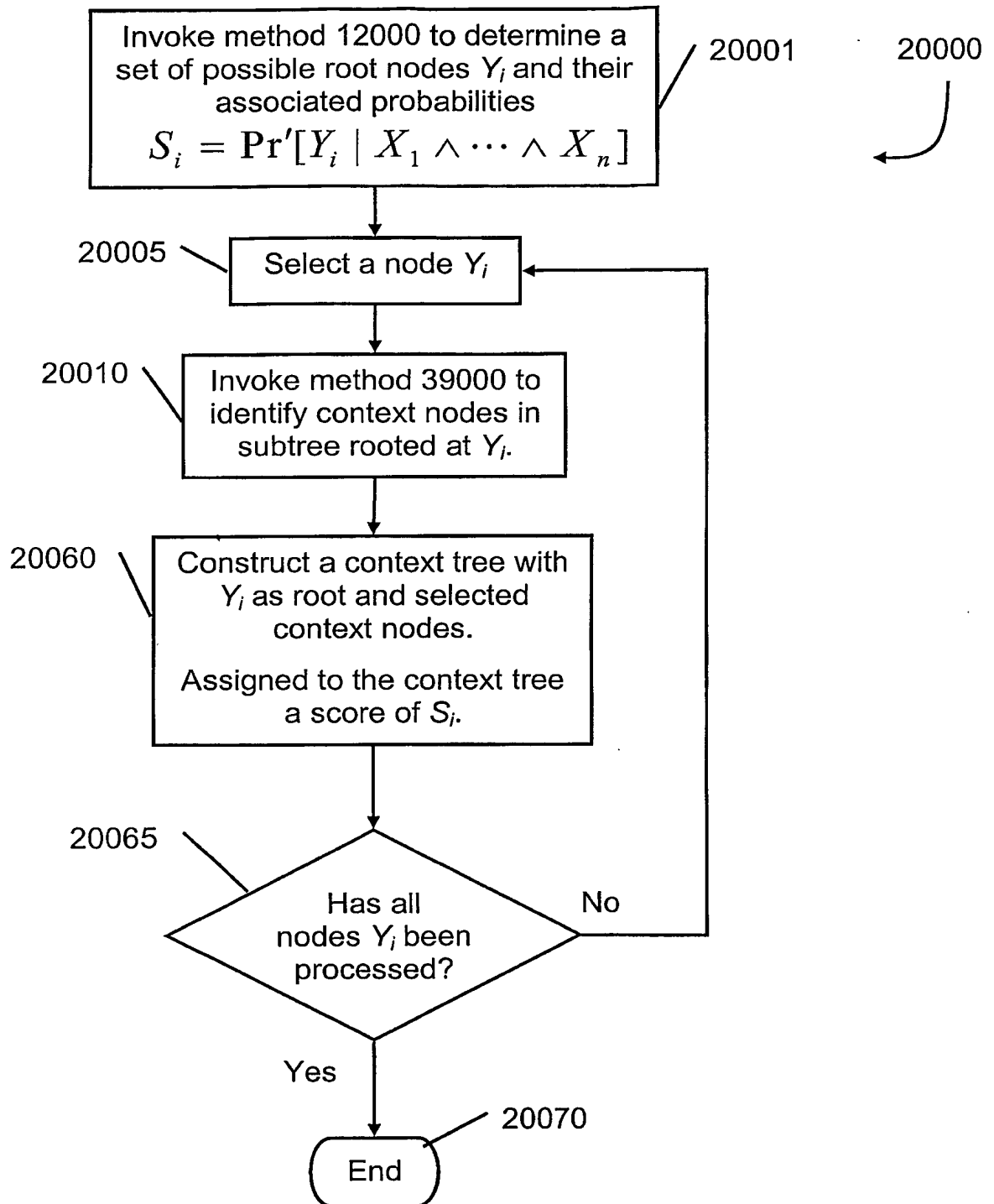
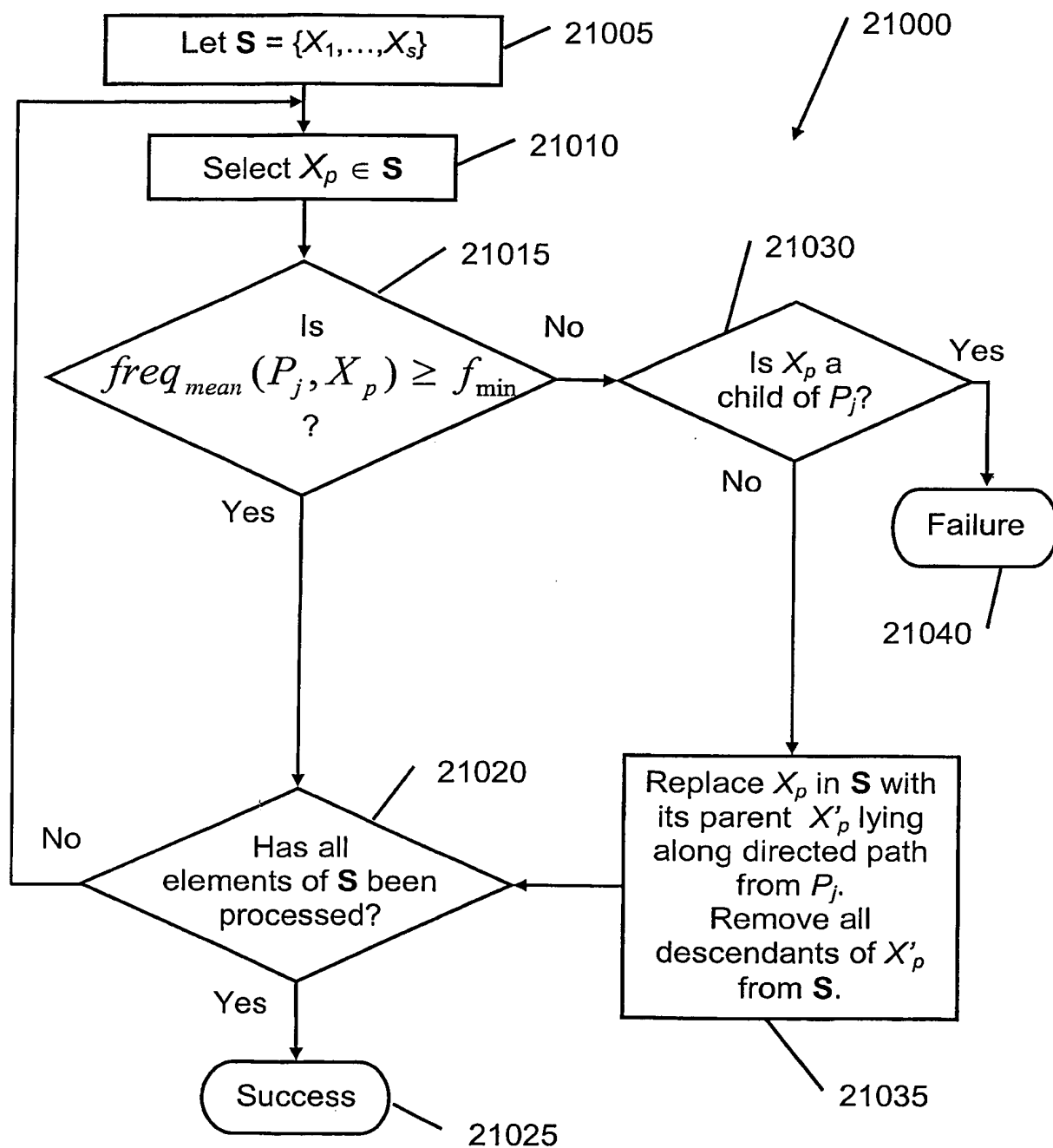


Fig. 20

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**Fig. 21**

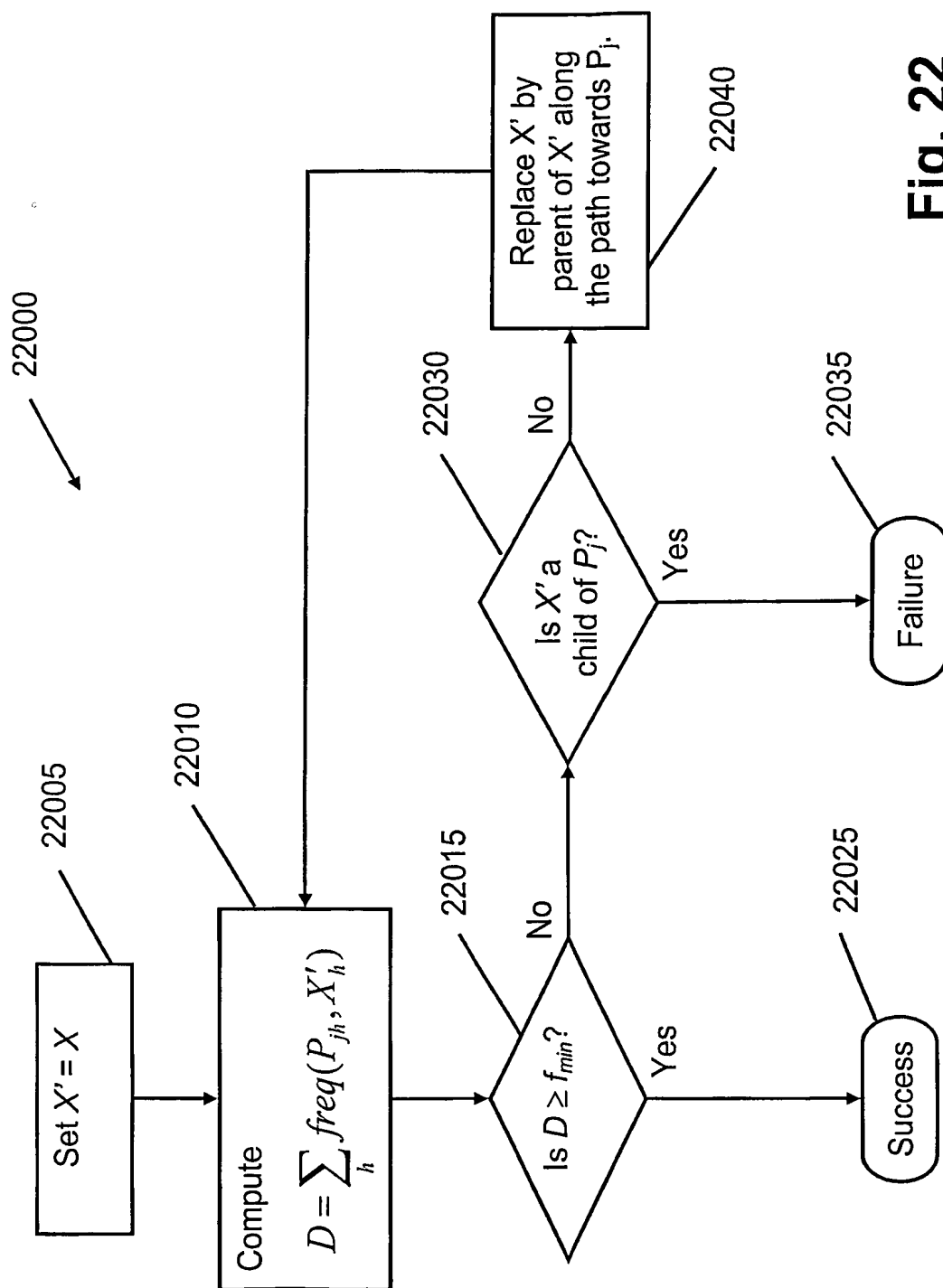


Fig. 22

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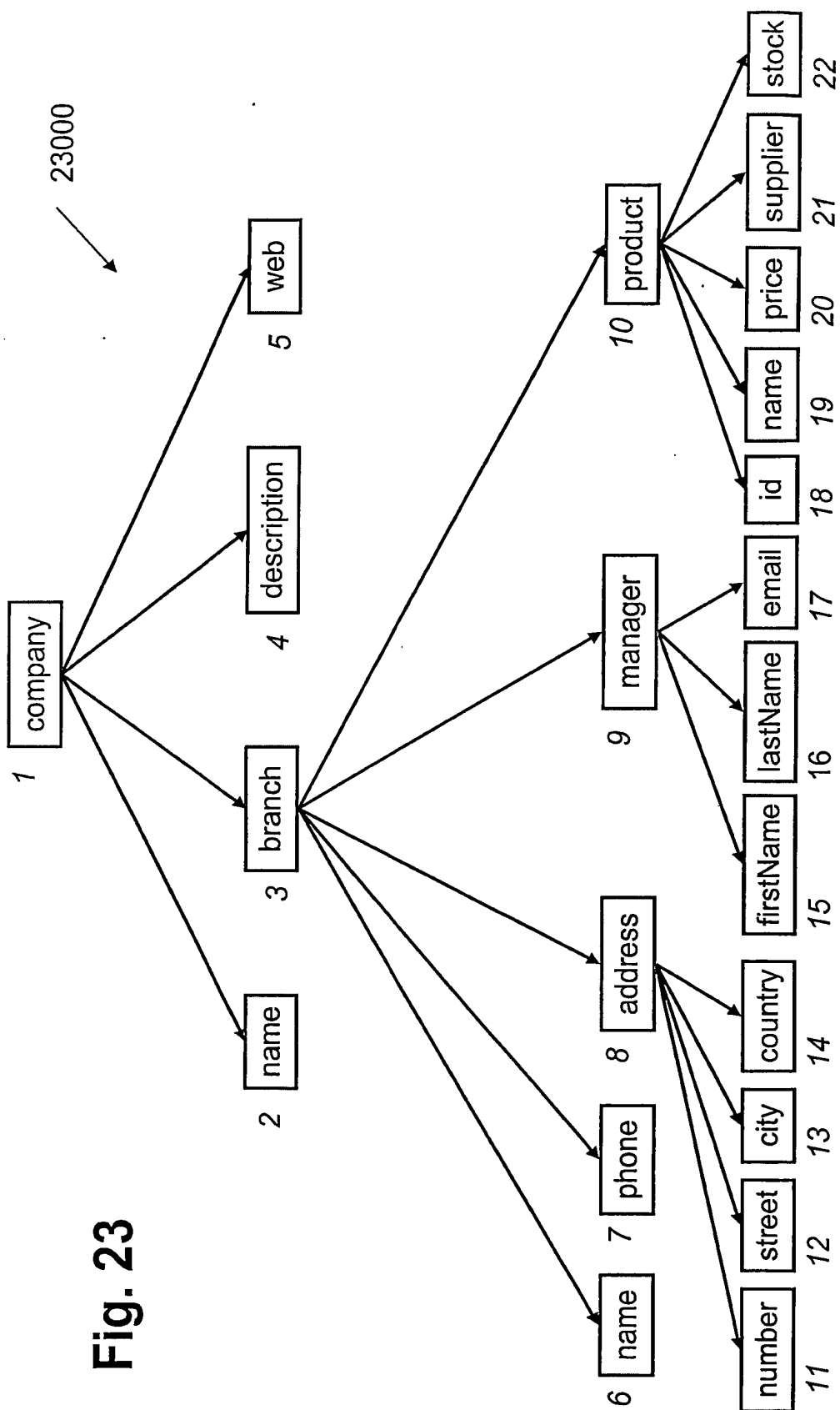
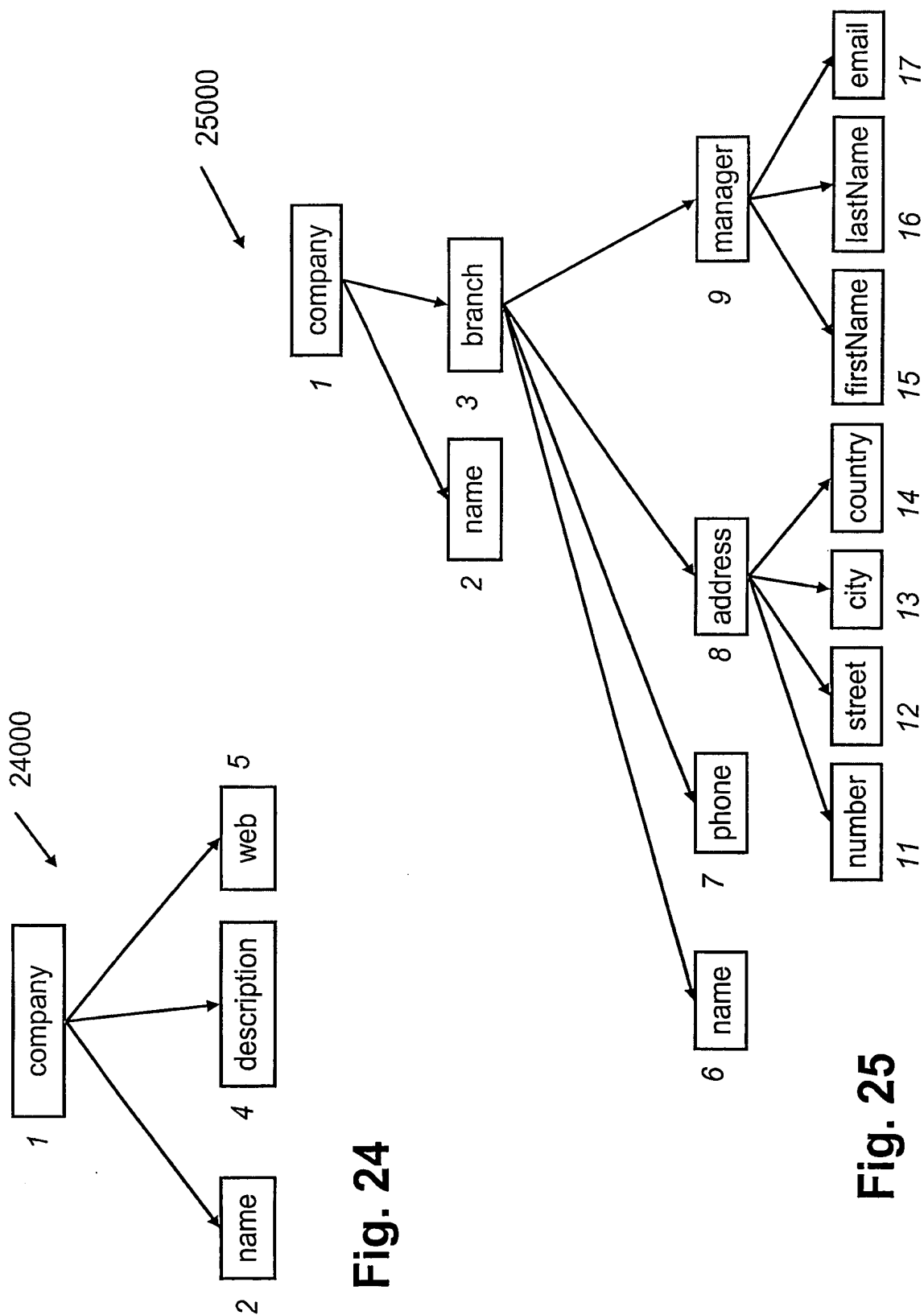


Fig. 23





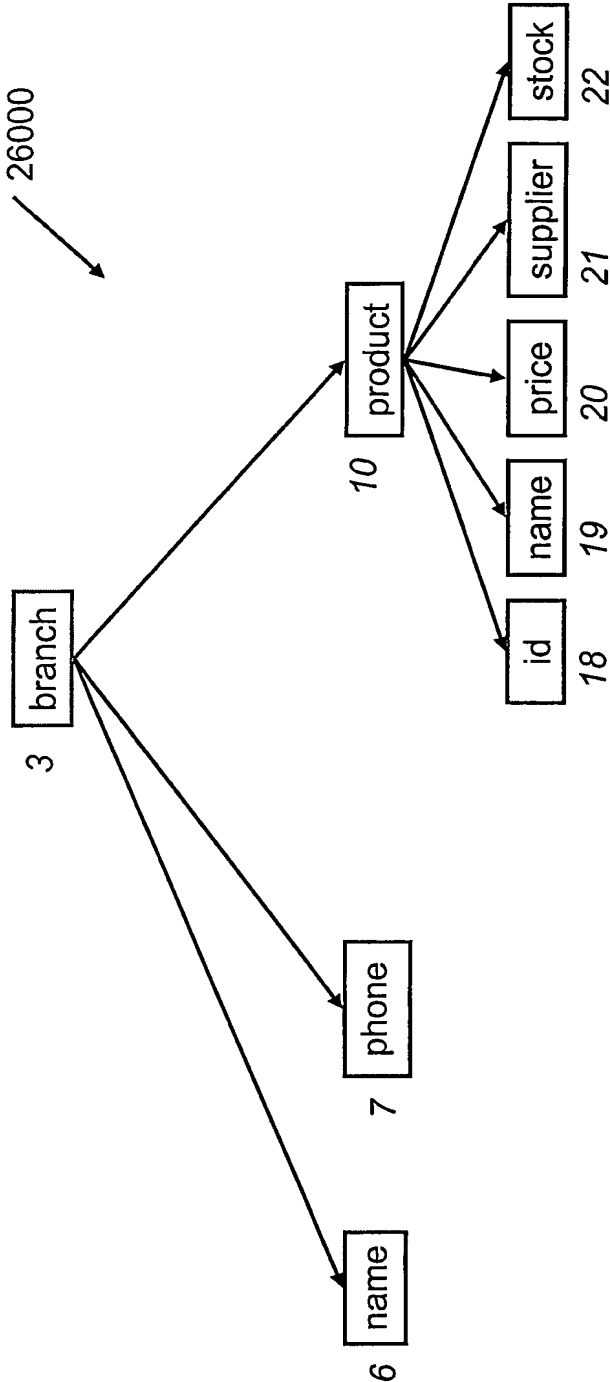


Fig. 26

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$X$	$freq(X)$
1	2
2	2
3	2
4	1
5	1
6	2
7	2
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
22	1

27000  
↙

**Fig. 27**

$freq(Y_i, X)$

	$Y_i$				
$X$	1	3	8	9	10
2	2				
3	1				
4	1				
5	1				
6	1	2			
7	1	2			
8	1	1			
9	1	1			
10	0	1			
11	1	1	1		
12	1	1	1		
13	1	1	1		
14	1	1	1		
15	1	1		1	
16	1	1		1	
17	1	1		1	
18	0	1			1
19	0	1			1
20	0	1			1
21	0	1			1
22	0	1			1

28000

28005

Fig. 28

$freq(Y_i, P_j \text{ leaf})$

	$Y_i$	
$P_j$	1	3
3	0	
8	0	0
9	0	0
10	0	0

29000

Fig. 29

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*freq(P<sub>j</sub> has 1 child, X)*

<i>X</i>	<i>P<sub>j</sub></i>				
	1	3	8	9	10
2	0				
3	0				
4	0				
5	0				
6	0	0			
7	0	0			
8	0	0			
9	0	0			
10	0	0			
11	0	0	0		
12	0	0	0		
13	0	0	0		
14	0	0	0		
15	0	0		0	
16	0	0		0	
17	0	0		0	
18	0	0			0
19	0	0			0
20	0	0			0
21	0	0			0
22	0	0			0

30000

**Fig. 30**

*freq(C<sub>k</sub>, P<sub>j</sub>, X): P<sub>j</sub> = node 1*


	<i>C<sub>k</sub></i>			
<i>X</i>	2	3	4	5
2		1	1	1
3	1		0	0
4	1	0		1
5	1	0	1	
6	1		0	0
7	1		0	0
8	1		0	0
9	1		0	0
10	0		0	0
11	1		0	0
12	1		0	0
13	1		0	0
14	1		0	0
15	1		0	0
16	1		0	0
17	1		0	0
18	0		0	0
19	0		0	0
20	0		0	0
21	0		0	0
22	0		0	0

31000  
←

**Fig. 31**

*freq(C<sub>k</sub>, P<sub>j</sub>, X): P<sub>j</sub> = node 3*

	<i>C<sub>k</sub></i>				
<i>X</i>	6	7	8	9	10
6		2	1	1	1
7	2		1	1	1
8	1	1		1	0
9	1	1	1		0
10	1	1	0	0	
11	1	1		1	0
12	1	1		1	0
13	1	1		1	0
14	1	1		1	0
15	1	1	1		0
16	1	1	1		0
17	1	1	1		0
18	1	1	0	0	
19	1	1	0	0	
20	1	1	0	0	
21	1	1	0	0	
22	1	1	0	0	

32000

**Fig. 32**

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 $\text{freq}(C_k, P_j, X): P_j = \text{node } 8$ 

	$C_k$			
$X$	11	12	13	14
11		1	1	1
12	1		1	1
13	1	1		1
14	1	1	1	

33000

**Fig. 33** $\text{freq}(C_k, P_j, X): P_j = \text{node } 9$ 

	$C_k$		
$X$	15	16	17
15		1	1
16	1		1
17	1	1	

34000

**Fig. 34** $\text{freq}(C_k, P_j, X): P_j = \text{node } 10$ 

	$C_k$				
$X$	18	19	20	21	22
18		1	1	1	1
19	1		1	1	1
20	1	1		1	1
21	1	1	1		1
22	1	1	1	1	

35000

**Fig. 35**

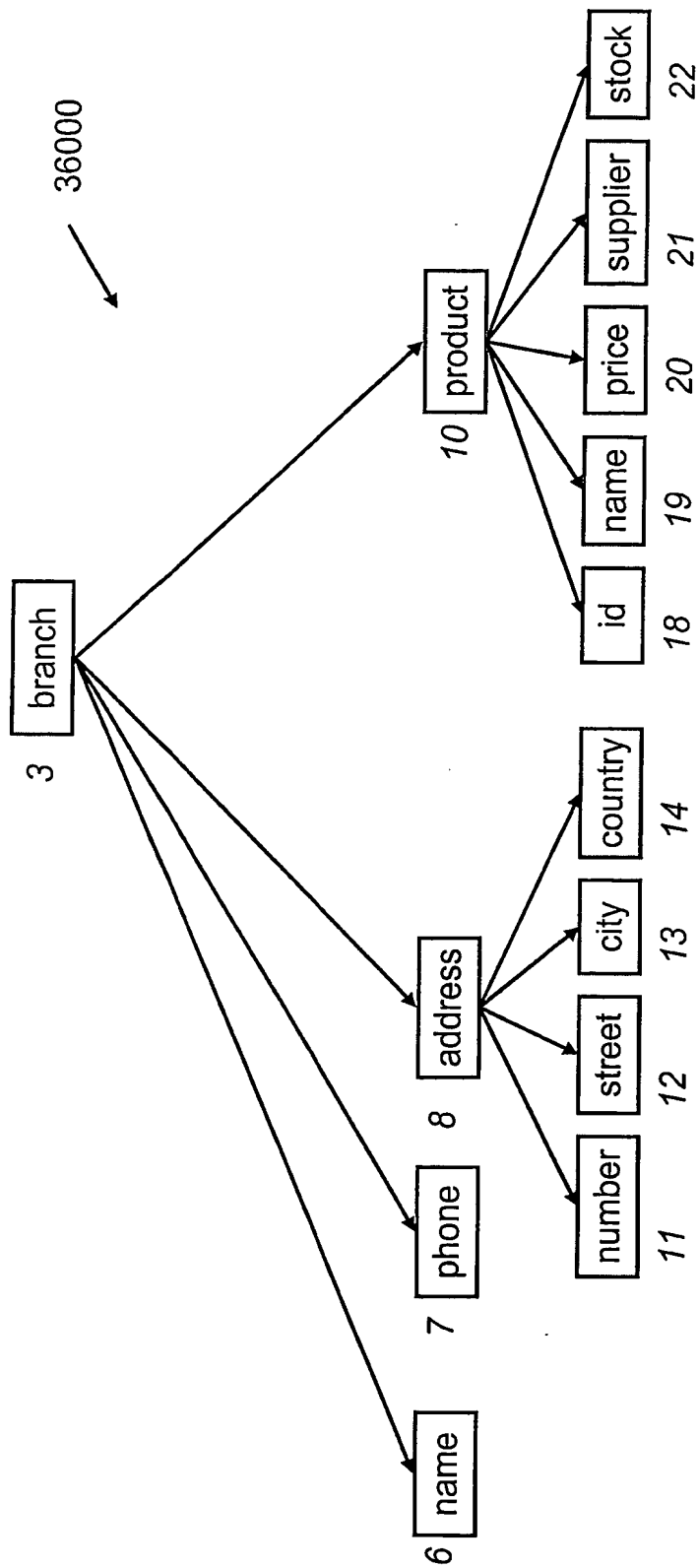
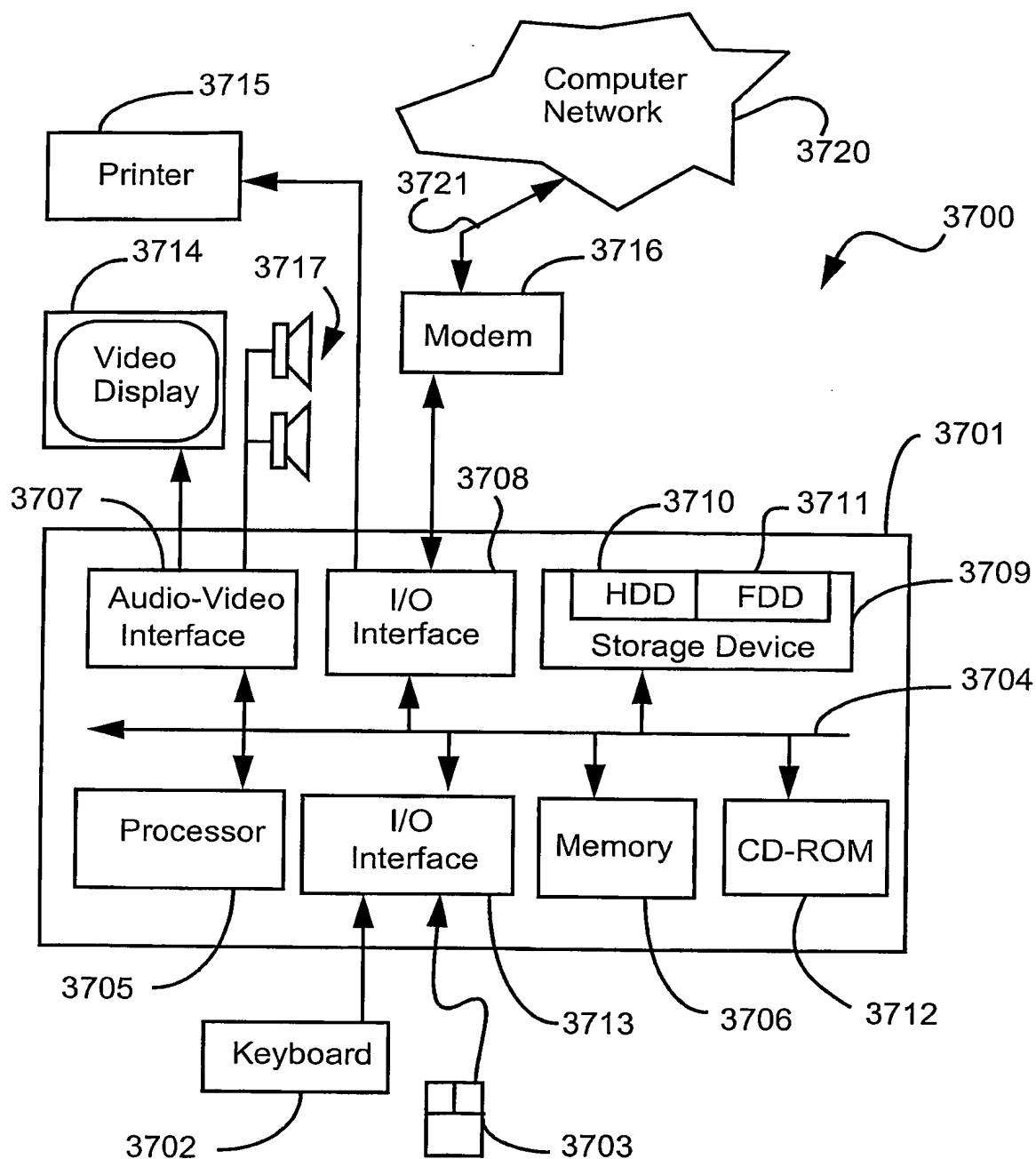


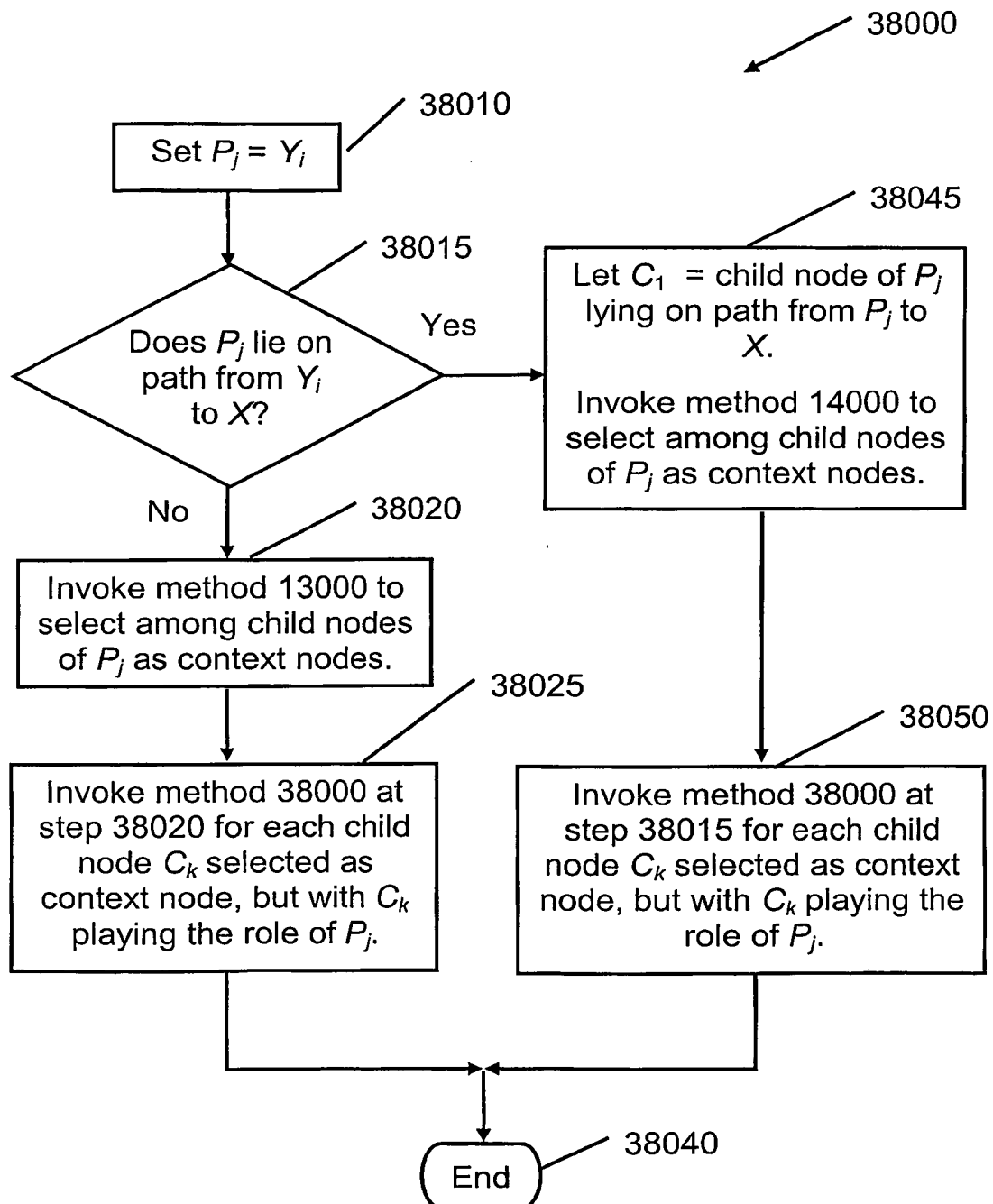
Fig. 36



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**Fig. 37**

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**Fig. 38**

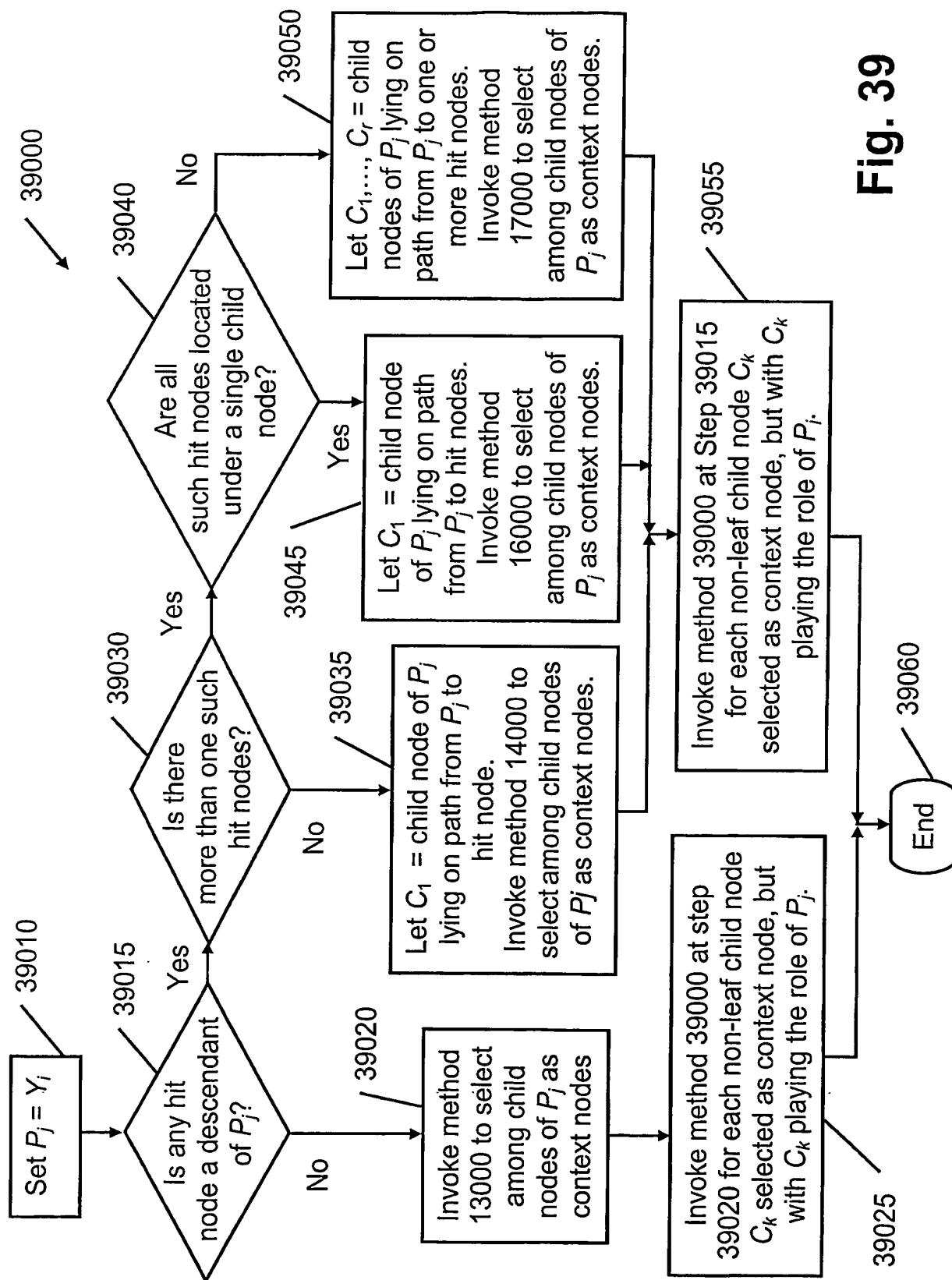


Fig. 39